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ELECTRICAL INSPECTION BRANCH

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ADOPTION OF THE SECOND EDITION OF SUPPLEMENT "R" (1959) - CANADIAN ELECTRICAL CODE, PART I, SEVENTH EDITION.

The Second Edition of Supplement "R", which supersedes the First Edition (1958), is now available and this issue includes editorial corrections to the Seventh Edition of the Code and all changes approved, to the date of publication, by the Part I Committee for inclusion in the next edition of the Code.

The Rules in the Second Edition of Supplement "R", and its adoption, were considered by representatives of the industry at the Alberta Provincial Code Committee Meeting held in Lethbridge during the second week in February, 1960. The discussion at this meeting indicated that the Rules contained in the Supplement would not, with their application, present any particular problems. However, since it is not desirable to make too frequent changes to the requirements it is not expected that the Supplement will be adopted in the near future.

Installations may now be completed in accordance with the amended rules in this Supplement if it is so desired even though the requirements may not become mandatory for some time. The cost of this edition of the Supplement is 50¢.

AMENDMENTS TO THE "REGULATIONS GOVERNING THE CERTIFICATION OF ELECTRICAL WORKERS".

The following change to the "Regulations Governing the Certification of Electrical Workers" was recently adopted by Order-in-Council and should be noted by persons requiring the conversion of their certificate to one issued under the "Electrical Protection Act" to permit them to engage in electrical work in this Province.

Clause 15 of the "Regulations Governing the Certification of Electrical Workers" has been deleted and the following substituted:

> "Persons making application to replace their certificates, as provided in Clause 3, after the dates stated in Clause 4 and Clause 6 shall, if the application is accepted, be charged the renewal fee. Persons converting certificates from one type to another will be charged the renewal fee for the type of certificate obtained."

In effect, this revision means that a fee of $5.00 is charged where an application for a replacement "Standard" type of certificate is accepted. A fee of $10.00 is charged where the applicant requires an annually renewable, or "P" type of certificate.

Where the conversion of a certificate is involved, a fee of $5.00 or $10.00 respectively is charged depending upon whether the applicant required a "Standard" or "P" type of certificate.

INSTALLATION OF NON-METALLIC UNDERGROUND DUCT SYSTEMS FOR ELECTRIC LIGHT & POWER CONDUCTORS.

Many field problems have been experienced due to the improper installation of underground non-metallic duct systems by persons not familiar with acceptable installation procedures and techniques.

Non-metallic duct systems intended as raceways for electrical conductors, coming within the scope of Part I of the Canadian Electrical Code, must be installed in accordance with established essential requirements and minimum standards. To comply with these adopted standards non-metallic conduits composed of bituminized fibre, asbestos cement, or similar materials, and their associated fittings when used as raceways must, in general, be certified for the purpose intended by the C.S.A. Testing Laboratories. Also, the material is to be installed in a manner which will provide the required physical protection and to allow for the ready insertion and removal of the conductors without damage to their insulation.

In view of the above, it is essential that non-metallic underground duct systems be installed by certified electrical workers familiar with the requirements that are to be met. It is, also, a requirement of the Provincial "Regulations Governing the Certification of Electrical Workers" that electrical work of this nature be undertaken by certified electrical workers only.

PRECAUTIONS TO BE TAKEN WITH ELECTRICAL SYSTEMS WHERE COMBUSTIBLE THERMAL INSULATION IS UTILIZED.

Investigations conducted by the Provincial Electrical Inspection Branch of several recent fires suspected to be of electrical origin revealed that the use of combustible thermal insulation in the hollow spaces between studding, joists and rafters was, in some cases, the initial cause of the fire.

In many instances it is found that fine particles of insulation of this kind have entered through the mounting holes, or improperly filled unused knock-outs, of junction, switch and lighting outlet boxes with the result that these particules deposit around the lamp holder terminal connections, or switches integral with the lighting units. From evidence revealed during investigations it is quite apparent that with such conditions excessive temperatures from oversized lamps, arcing from loose terminals, or switch parts, does result in the ignition of the particles of combustible insulation.

Canadian Electrical Code Rule 2-050 indicates that material of other than electrical nature shall not be installed or placed so close to electrical equipment as to create a condition which is dangerous. On the basis of past field experience, and this Rule, electrical wiring installed in conjunction with combustible insulation will only be considered as acceptable if the insulation is maintained at a reasonable distance from outlet boxes, or non-combustible insulation is placed around such boxes to prevent entry of the combustible material.

OPEN WIRING FOR OUTDOOR LIGHTING - RULE 32-046(b) (PIN TYPE SOCKETS).

Information obtained from the C.S.A. Testing Laboratories indicates that no manufacturers have submitted for approval and listing a pin type lamp holder which has been designed for use with the polychloroprene jacketed type of conductor specified in Rule 32-046(b). The pin type sockets presently listed by the Laboratories, it is understood, are designed only for use with the type RW, CXW, CXWT and similar conductors. None of these conductors are suitable for applications involving permanent outdoor wiring utilizing the pin type sockets now available.

In view of the above, pin type sockets should not be used in conjunction with open wiring for outdoor lighting, such as is frequently used for car sales lots, etc., unless, or until, lamp holders are approved and available which will accommodate properly the type of conductor listed so that the requirements of Rule 32-046(b) are met.

LIGHTING FIXTURES INCORPORATING NON-GROUNDING TYPE PARALLEL BLADE RECEPTACLES.

Since the Canadian Electrical Code Rules (R26-106(2)) now in effect in this Province require the three pole grounding type of receptacles where parallel blade receptacles are utilized it becomes necessary, in the interests of uniformity, to clarify the conditions under which fixtures incorporating non-grounding type receptacles may be used.

There are presently available many Canadian Standards Association certified lighting fixtures which incorporate the non-grounding parallel blade receptacles. While it is understood that the C.S.A. Testing Laboratories will not accept any new applications for the certification of this type of unit, no action has been initiated, as yet, to withdraw the approval of the fixtures which have previously been listed.

Until such time as positive action has been taken towards the withdrawal of the approval of fixtures incorporating the non-grounding type of receptacles, their use will be permitted with certain limitations. Such fixtures will only be considered suitable, and acceptable, for locations where the equipment that is likely to be connected thereto does not require grounding. (See Appendix H Canadian Electrical Code, Part I). Fixtures are to be of a type which incorporate the three pole grounding type of receptacles if installed in areas where the equipment that may be connected thereto requires grounding.